# FIVE MORE VERBENACEOUS NOVELTIES

Harold N. Moldenke

AEGIPHILA GLORIOSA var. PARAËNSIS Moldenke, var. nov.

Haec varietas a forma typica speciei pilis ubique multo brevioribus minore divaricatis recedit.

This variety differs from the typical form of the species in having its pubescence throughout much shorter and far less conspicuously divaricate-spreading.

The type of the variety was collected by M. Silva and R. Souza (no. 2253) in woods on terra firme from Ramal to Novo Imperio, at km. 35 on the road to Palhão, Santamém, Pará, Brazil, on August 14, 1969, and is deposited in my personal herbarium at Plainfield, New Jersey. The collectors describe the plant as a shrub, 3 meters tall, with yellow flowers. It has much the overall appearance of A. racemosa Vell.

AEGIPHILA MICROCALYCINA Moldenke, sp. nov.

Frutex scandens; ramulis junioribus gracillimis densissime adpresseque puberulentibus, pilis antrorso-strigosis; internodiis elongatis; foliis decussato-oppositis; petiolis gracillimis brevissimis densissime adpresseque puberulentibus; laminis foliorum membranaceis ellipticis vel lanceolatis supra glaberrimis nitidisque, subtus in reticulo venarum adpresso-puberulentibus, caetero subglabratis punctulatis, ad apicem acuminatis, ad basin abrupte acutis; inflorescentiis axillaribus terminalibusque multifloris laxis, ramulis densissime adpresso-puberulis; calyce parvo patente-campanulato parce strigilloso margine 4-dentato; corollae tubo pergracillimo glaberrimo.

Woody vine, the uppermost branchlets apparently very slender, very densely appressed-puberulent with strigose russet-brownish subantrorsely oriented hairs; principal uppermost internodes much elongated, 2.5--6 cm. long, the nodes flattened and somewhat ampliate; leaves decussate-opposite, numerous, decreasing in size toward the tips of the branchlets and among the inflorescences; petioles very slender, 3--8 mm. long, very densely appressed-puberulent with russet-brown antrorsely strigose very short hair; leaf-blades elliptic or somewhat lanceolate, 6--12 cm. long, 2--5 cm. wide, acuminate at the apex, abruptly acute at the base, completely glabrous and very shiny above, glabrous or subglabrate and shiny beneath except for the densely strigose-puberulent larger venation, densely punctulate between the veins, the midrib and the approximately 6 pairs of arcuate-ascending secondaries very slender, the latter arcuately joined in many loops at the margins; inflorescence abundant, axillary and terminal, at the tips of the youngest branchlets, more or less pyramidal, rather foliose, the peduncles, sympodia, and pedicels very slender and very densely strigose-puberulent with antrorsely appressed russet-brown hairs; bracts rather few, the lowermost foliaceous, the up-

per linear-spatulate and densely appressed-strigose; calyx broadly campanulate, relatively small, 1 mm. long, 2 mm. wide, extending far beyond the corolla-tube on both sides, very sparsely scattered-pilose, apparently herbaceous, the rim plainly 4-dentate; corolla cream-colored, very distinctly hypocrateriform, the tube very slender, about 5 mm. long, less than 0.5 mm. wide except at the ampliate apex, completely glabrous and shiny on the outer surface, the limb completely glabrous, the lobes 4, oblong-lingulate, wide-spreading in anthesis, about 2 mm. long and 1 mm. wide, subacute or obtuse at the apex; filaments long-exserted, white, projecting 6--8 mm. beyond the corolla-tube.

The type of this very distinct species was collected by G. T. Prance, W. C. Steward, E. P. Harter, J. F. Ramos, W. S. Pinheiro, and O. P. Monteiro (no. 10907) at the margin of the Uaicá airstrip, Rio Uraricoeira, at 3°33' N., 63°11' W., Roraima, Brazil, on March 12, 1971, and is deposited in my personal herbarium at Plainfield, New Jersey. Superficially this species greatly resembles A. vitelliniflora Klotzsch, but its calyx characters at once distinguish it with ease.

CLERODENDRUM KLEMMEI var. PUBERULUM Moldenke, var. nov.

Haec varietas a forma typica speciei inflorescentibus dense puberulentibus recedit.

This variety differs from the typical form of the species in having the inflorescences, including the peduncles, sympodia, pedicels, calyxes during anthesis, and outer surface of the corolla-tubes, densely puberulent.

The type of the variety was collected by Maximo Ramos [Herb. Philip. Bur. Sci. 7251] in the province of Abra, Luzon, Philippines, in January or February of 1909, and is deposited in the United States National Herbarium at Washington. The general appearance of the inflorescence is much like that seen in C. quadriloculare (Blanco) Merr. or C. mindorense Merr., but the calyx-lobes are quite different.

CLERODENDRUM MINAHASSAE var. GRANDICALYX Moldenke, var. nov.

Haec varietas a forma typica speciei calycis floriferis 4 cm. longis 8--10 mm. latis et tubo corollae 11 cm. longo recedit.

This variety differs from the typical form of the species in having its calyx during anthesis 4 cm. long and only 8--10 mm. wide and the corolla-tube 11 cm. long.

The type of the variety was collected by Chester A. Wenzel (no. 261) on the island of Leyte, Philippines, sometime in 1913, and is deposited in the United States National Herbarium at Washington.

VITEX TRIFLORA var. HIRSUTA Moldenke, var. nov.

Haec varietas a forma typica speciei pedicellis tuboque calycis lobisque calycis patente hirsutis recedit.

This variety differs from the typical form of the species in having its pedicels, calyx-tubes, and calyx-lobes conspicuously

rather long-hirsute with brown and distinctly wide-spreading hairs.

The type of the variety was collected by P. J. M. Maas, K. Kubitzki, W. C. Steward, J. F. Ramos, W. S. Pinheiro, and J. F. Lima (no. P.13120) in a forest on terra firme at Aldeota, between Porangaba and Papagaio, Rio Juruá-Mirim, Cruzeiro do Sul, along the Rio Juruá and/or Rio Moa, Acre, Brazil, on May 18, 1971, and is deposited in my personal herbarium at Plainfield, New Jersey. The collector describes the plant as a tree, 4 meters tall, with pale-blue flowers.

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## BOOK REVIEWS

Alma L. Moldenke

"INSECT RESISTANCE IN CROP PLANTS" by Reginald H. Painter, 2nd edition, xi & 520 pp., illus., University of Kansas Press, London & Lawrence, Kansas 66044. 1968. 40 sh. or $4.75 paperback.

The first edition of this very fine work appeared in 1951 and recently has become scarce as the proverbial "hens' teeth". Yet this field of study has only grown in importance because of increasing food needs of our increasing population, because of increasing insecticide immunity, and because of the growing awareness of the serious wide-spread havoc upon the ecosystem caused by the excessive use of non-biodegradable insecticides.

The format and content are basically the same. They deal with the mechanisms of resistance, the factors affecting the expression or the permanence of resistance, the resistance to insects in wheat, corn, cotton, sorghums and potatoes, and the methods and problems in breeding for resistance. There is a topically arranged bibliography which was one of the treasures of the first edition. Little has been added to this new edition to bring it up to date.

The preface to this new paper-bound edition closes with this orientation: "In contrast to the use of insecticides, where results are sudden and there is decreasing effectiveness until reapplied, insect-resistant varieties are more permanent and cumulative in effectiveness. This is especially true of low levels of insect resistance, which have not received the attention they deserve. The use of insect-resistant varieties should be of increasing value around the world in the coming development of integrated insect control."

"HAWAIIAN HERBS OF MEDICINAL VALUE" - Found Among the Mountains and Elsewhere in the Hawaiian Islands, and Known to the